- Tetrastichus Anteius*. Destroys a *Cecidomyia* in the flowers of *Carduus nutans*, musk thistle, and an *Apion* in *Vicia sepium*, bush vetch.
- *Nerio*. Destroys an *Apion* in *Spartium Scoparium*, broom.
- *Agathocles*. Destroys an *Apion* in *Trifolium pratense*, clover.
- *Prosymna*. Destroys an *Apion* in the flowers of *Trifolium pratense* (clover), a subcutaneous larva in *Ranunculus repens*, creeping crowfoot, and another of the *Elachista* of *Lonicera Xylosteum*, fly honeysuckle.
- *Lycidas*. Destroys a larva in the pollen of *Fraxinus*, the ash.
- *Ligus*. Destroys *Phytomyza Taraxaci*, Kalt.
- *Eudemus*. Destroys a *Cecidomyia* in the receptacle of *Achillea Ptarmica*, sneezewort.
- *Bunus*. Destroys *Cecidomyia Spirææ* that forms galls in *Spiræa Ulmaria*, the meadow-sweet.
- *Chares*. Destroys *Cecidomyia Polygoni*, Kalt., that rolls up the leaves of *Polygonum amphibium*, spotted persicaria.
- *Achæmenes*. Destroys *Cecidomyia Rumicis*, Kalt.
- *Deipyrus*. Destroys *Cecidomyia Caricis*.
- Platygaster Rhanis*. Destroys *Cecidomyia Medicaginis*, Kalt.
- *Sonchis*. Destroys *Cecidomyia Betulæ*.
- *Orus*. Destroys *Lasioptera argyrosticta*.

On the Mode of Propagation of various Entozoa. By M. EMILE BLANCHARD.

The author has investigated with great care the entozoa inhabiting the bodies of domestic animals, particularly the "Douve du Foie" (*Fasciola hepatica*, Linn.), which is found in the liver of cows and sheep, particularly in some parts of Germany. He has assured himself, by the examination of a large number of cattle, that these parasites do not occur in the liver in any other than the adult condition, or at least very nearly full-grown. In the biliary ducts, on the other hand, the ova are to be found in great numbers, and in passing towards the inferior extremity of the intestinal tract these appear to undergo a process of incubation, being more advanced as they pass downwards. The intermediate stages between the ova and the adult animal are never to be found. It is, therefore, nearly certain that the ova pass out of the intestines with the excrements, and undergo development in some other situation, apart from the body of the infested animal; and that, after attaining nearly their full growth, they are received along with the food into the stomachs of other individuals, and thence pass again to the liver, where they propagate a new race.

M. Blanchard has also remarked, in regard to other entozoa, their occurrence only in the adult condition in the parts principally infested. This is the case with the *Amphistoma conicum*, which inhabits the first stomach of cows and oxen, with the *Brachylemus variegatus*, which occurs in the lung of the *Rana esculenta*, and the *B. cylindraceus*, in that of the *Rana temporaria*. The *Tenia* and *Bothriocephalus* (tapeworms) of the human subject are, on the contrary, to be found in every stage of growth, a whole family sometimes occurring in the intestines of one individual.

The intermediate stages of growth of the above-mentioned entozoa are still unknown ; but from the extreme variety of forms known to be assumed by some of the *Trematoda* at different stages of their development, it may be supposed, without much improbability, that we are already familiar with the younger conditions of some of them, and have recognized them as different species. M. Blanchard directs particular attention to the enormous numbers of the ova of these animals, as showing that a vast majority of them must be abortive, probably in consequence of not meeting with the proper conditions for their development.

The author has examined a very large number of foetal animals, the adults of which are apt to be infested with the above parasites ; but has never, in any instance, found a foetus so infested. He directs attention to this fact as strongly indicating the necessity of the introduction of the ova from without, probably along with the alimentary matters.—*Comptes Rendus*, March 1848.

METEOROLOGICAL OBSERVATIONS FOR MAY 1848.

Chiswick.—May 1. Fine: cloudless, with very dry air. 2. Dry haze. 3, 4. Slight fog: fine: clear. 5—7. Very fine. 8. Excessively dry air. 9, 10. Very fine. 11—13. Hot and very dry. 14. Fine. 15. Slight haze: cloudy and fine. 16. Cloudless and very fine. 17. Very fine. 18. Fine: large white clouds: thunder and hail-shower in afternoon: clear at night. 19. Cloudy: slight showers. 20. Showery. 21. Fine: slight rain. 22. Very fine. 23. Cloudless. 24. Fine. 25. Clear: cloudy: clear. 26. Foggy: fine, with slight haze: clear. 27. Overcast. 28. Very fine: slight haze. 29. Very fine: hot and dry: partially overcast at night. 30, 31. Fine.

Mean temperature of the month 58°·12

Mean temperature of May 1847 56·83

Mean temperature of May for the last twenty years 55·91

Average amount of rain in May 1·84 inch.

Boston.—May 1—8. Fine. 9. Cloudy. 10. Fine. 11. Fine: two o'clock thermometer 78°. 12. Fine. 13. Cloudy. 14. Fine. 15. Cloudy. 16. Fine. 17. Fine: rain, thunder and lightning P.M. 18, 19. Fine. 20. Cloudy. 21. Fine. 22. Cloudy. 23—26. Fine. 27. Cloudy. 28, 29. Fine. 30. Cloudy. 31. Fine: rain P.M.

Applegarth Manse, Dumfries-shire.—May 1. Slight frost A.M.: fine. 2. Fine, but cloudy. 3. Very fine. 4. Beautiful day. 5. Beautiful day: getting cloudy. 6. Beautiful day. 7. Slight rain P.M. 8. Heavy rain early. 9, 10. Fine summer days. 11. Fine summer day: overcast. 12. Fine summer day: still fair. 13. Fine summer day: fine: clear. 14. Fine summer day: slight shower: thunder. 15. Cloudy: rain P.M. 16. Cloudy A.M.: clear P.M. 17. Clear and fine. 18. Cloudy: cleared. 19. Wet A.M., but fine. 20. Cloudy A.M.: fine P.M. 21. Dull and drizzling: cleared. 22, 23. Beautiful summer day. 24. Beautiful summer day: distant thunder: shower. 25. Beautiful day. 26. Clear A.M.: shower P.M. 27. Warm and fine. 28. Rain A.M.: showery all day. 29, 30. Fair and fine. 31. Heavy rain all day.

Mean temperature of the month 52°·9

Mean temperature of May 1847 51·1

Mean temperature of May for twenty-five years 51·09

Rain in May for twenty years 1·69 inch.

Sandwich Manse, Orkney.—May 1. Clear. 2. Fine. 3. Rain: fine. 4, 5. Fine. 6. Fine: cloudy. 7. Cloudy: showers. 8, 9. Clear. 10. Damp. 11. Fine: showers. 12. Bright: drizzle. 13. Drizzle: damp. 14. Clear: fine. 15. Cloudy: drizzle. 16. Rain: showers. 17. Clear: cloudy. 18. Fog: showers. 19. Clear: cloudy. 20. Drops: fine. 21. Clear: cloudy. 22. Cloudy. 23. Fog: damp. 24. Bright: damp. 25. Bright: cloudy. 26. Cloudy. 27. Bright: rain. 28. Bright: cloudy. 29. Clear: drops. 30. Cloudy: clear. 31. Rain.

Blanchard, Emile. 1848. "On the mode of propagation of various entozoa." *The Annals and magazine of natural history; zoology, botany, and geology* 2, 78–79. <https://doi.org/10.1080/03745485809496148>.

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